

Appl. No. 09/623,643
Amendment and/or Response
Reply to Office action of 7 March 2005

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REMARKS / DISCUSSION OF ISSUES

Claims 4 and 7-10 are pending in the application.

The applicants thank the Examiner for providing information about recommended section headings. However, the applicants respectfully decline to add the headings. Section headings are not statutorily required for filing a non-provisional patent application under 35 USC 111(a), but are only guidelines that are suggested for applicant's use. (See Miscellaneous Changes in Patent Practice, Response to comments 17 and 18 (Official Gazette, August 13, 1996) [Docket No: 950620162-6014-02] RIN 0651-AA75 ("Section 1.77 is permissive rather than mandatory. ... [T]he Office will not require any application to comply with the format set forth in 1.77").

The Office action rejects claims 4, 7, and 10 under 35 U.S.C. 103(a) over Connell et al. (USP 5,998,978, hereinafter Connell) and Sakaki (USP 6,035,357). The applicants respectfully traverse this rejection.

Claim 4, upon which claims 7 and 10 depend, claims a mobile data carrier that includes a data-processing circuit with asynchronously operating logic elements whose signal-processing rate is dependent on a supply voltage applied to the data-processing circuit.

The Office action acknowledges that Connell does not teach asynchronously operating logic elements whose signal-processing rate is dependent on a power supply voltage applied to the data-processing circuit, and relies upon Sakaki for this teaching. The applicants respectfully disagree with this characterization of Sakaki.

The Office action asserts that Sakaki teaches a data-processing circuit with asynchronously operating logic elements whose signal-processing rate is dependent on a supply voltage applied to the data-processing circuit at col. 3, lines 12-16; col. 5, lines 36-39; and col. 8, lines 36-37. The cited text follows:

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"The second aspect optimizes the operation of the CPU in response to the detected supply voltage and stabilizes the operation of the IC card for a wide range of supply voltages. The external unit provides the IC card with signals such as a clock signal." (Sakaki, col. 3, lines 12-16.)

"The voltage detector 18 detects the supply voltage VDD applied through the terminal 11. The IC card 10 also has a flag holder 19 for holding the status of the detected supply voltage. The CPU 16, peripheral circuit 17, voltage detector 18 and flag holder 19 are merged into a single-chip IC." (Sakaki, col. 5, lines 36-39.)

"... Generally, the operating frequency of the CPU 16 drops if the supply voltage VDD drops..." (Sakaki, col. 8, lines 36-37.)

The applicants note that in each of these passages, Sakaki refers to a "CPU". The applicants respectfully maintain that a "CPU" is a synchronous device, whereas the applicants specifically claim "asynchronously operating logic elements whose signal-processing rate is dependent on a supply voltage". The applicants respectfully maintain that, absent any teaching to the contrary, Sakaki's CPU is a conventional synchronous device. Further, Sakaki specifically teaches that "the first embodiment halves the frequency of the clock signal CLK when the supply voltage VDD drops abnormally. The frequency of this frequency-halved clock signal never exceeds the operating frequency of the CPU 16", thereby reaffirming that the CPU 16 is a synchronous device whose speed is controlled by controlling the input clock signal. (Sakaki, column 8, lines 45-48.)

The applicants further note that the word "asynchronous" does not appear anywhere within Sakaki, and thus an assertion that Sakaki teaches "asynchronously operating logic elements whose signal-processing rate is dependent on a supply voltage" is unfounded.

Because neither Connell nor Sakaki, individually or collectively, teach or suggest asynchronously operating logic elements whose signal-processing rate is dependent on a supply voltage, as specifically claimed by the applicants, the applicants respectfully request the Examiner's reconsideration of the rejection of claims 4, 7, and 10 under 35 U.S.C. 103(a) over Connell and Sakaki.

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In view of the foregoing, the applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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